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(FILE 'HOME' ENTERED AT 07:01:23 ON 10 SEP 2001)

FILE 'REGISTRY' ENTERED AT 07:01:29 ON 10 SEP 2001

L1 111 (.05<C<.1 AND .2<MN<.5 AND AL<.02 AND 0<N<.02 AND 50<FE)/MAC

FILE 'HCA' ENTERED AT 07:03:13 ON 10 SEP 2001

L2 183 L1

L3 29035 (IRON OR FE OR STEEL) AND (CARBON OR C) AND (MANGANESE OR MN) A

L4 85 L2 AND L3

FILE 'ZCA' ENTERED AT 07:06:10 ON 10 SEP 2001

FILE 'HCA' ENTERED AT 07:10:11 ON 10 SEP 2001

L5 33 L4 NOT STAINLESS

SELECT L5 IPC 7 25

L6 113134 E1-4

L7 98 L6 AND CAN AND GRAIN AND ELONG?

L8 25 L7 AND L3

L9 25 L8 NOT (L5 OR L4)

AN 79:22466 HCA
 TI Low-**carbon**, -niobium, and -aluminum-containing **steel**
 sheets and plates
 IN Alten, Alfred G.; Semel, Frederick J.
 PA Wood, Alan, Steel Co.
 SO U.S., 11 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3721587	A	19730320	US 1970-94618	19701202
PRAI	US 1968-749273		19680801		

AB **Steel** for hot-rolled shapes free large **elongated** silicate inclusions and therefore esp. resistant to cracks when bent cold preferably contains **C** 0.02-0.08, **Mn** 0.25-0.8. Si .ltoreq.0.05, Al 0.006-0.018, Nb 0.025-0.045, Cu .ltoreq.0.25, S .ltoreq.0.03, P .ltoreq.0.02, and **N** 0.002-0.01%. The Nb provides a fine **grain** size with good strength and toughness in spite of low **C** and **Mn**. The ingots are preferably semikilled to prevent deep piping and soundness is increased by chilling the ingot tops with water 4-6 in. deep as soon as they have solidified, preventing internal oxidn. Deoxidn. is preferably controlled with Al in the molds. Plates or strip **can** be rolled at 2200-350.degree.F, the last pass giving 10-15% redn. at <1800.degree.F. By spray-cooling the finished shapes, the yield strength **can** be increased, sometimes as much as 10,000 psi; but when the **C** content is low, this generally decreases the notch toughness. Test data are presented on slabs and strips produced from 4-ton ingots of semikilled basic O-refined **steel**, each ingot being modified by various mold addns. Clean Al-treated spray-cooled **steel** had 57,100 psi lengthwise yield strength, 68,700 psi tensile strength, 22.5% **elongation**, 74.9% redn. of area, and 8.5 ft-lb notch-impact strength at 0.degree.F.

AN 131:325587 HCA
 TI **Steel** sheets for electrogalvanization without formation of
 wood-grain-type defects
 IN Soshirota, Tetsuo; Sato, Shiko; Iwai, Takafusa
 PA Kobe Steel Co., Japan
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 42 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 1156185	A	19970806	CN 1996-111048	19960612
	CN 1068069	B	20010704		
AB	The steel sheets contain .ltoreq.0.06% (preferably, .ltoreq.0.03%) Ni. The steel sheets contains C .ltoreq.0.10, Si .ltoreq.0.2, Mn .ltoreq.1.8, P .ltoreq.0.10, Al 0.005-0.10, N .ltoreq.0.10, and, addnl., Ti 0.005-0.1, Nb 0.005-0.1, B 0.0005-0.003, Cr .ltoreq.0.10, Ca .ltoreq.0.010, and/or Cu .ltoreq.0.5%. The steel sheets are manufd. by hot rolling at .ltoreq.1200.degree. (finish temp. 1050-1200.degree.).				

AN 112:60686 HCA
 TI Repair of steam-turbine parts from chromium-molybdenum steel by welding
 IN Clark, Robert Edward; Amos, Dennis Ray
 PA Westinghouse Electric Corp., USA
 SO Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 332875	A2	19890920	EP 1989-102689	19890216
	EP 332875	A3	19900725		
	R: BE, CH, DE, ES, FR, GB, IT, LI, SE				
	CA 1312926	A1	19930119	CA 1989-592164	19890227
	JP 01273692	A2	19891101	JP 1989-61993	19890314
	KR 9710894	B1	19970702	KR 1989-3176	19890314
PRAI	US 1988-168097	A	19880314		

AB Steam-turbine parts from Cr-Mo steel are repaired by buildup welding with the **Fe** alloy contg. **C** 0.04-0.22, **Cr** 4.0-19, **Mn** and **Si** 0.15-1.0 each, **P** .ltoreq.0.02, **S** .ltoreq.0.016, **Ni** .ltoreq.0.8, **Mo** 0.43-2.1, **V** 0.09-0.5, **Nb** 0.03-0.20, **Al** .ltoreq.0.08, **Cu** .ltoreq.0.20, and **N** 0.005-0.06%.

AN 130:44490 HCA
 TI Manufacture of steels having low-temperature toughness and creep strength
 for nuclear fusion reactors
 IN Hasegawa, Toshinaga; Tomita, Yukio
 PA Nippon Steel Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10310820	A2	19981124	JP 1997-118205	19970508
AB	<p> The steels contain C 0.03-0.20, Si 0.01-1.0, Mn 0.01-1.0, Al 0.002-0.1, N 0.002-0.1, Cr 5-13, W 0.3-4.0, V 0.05-0.50, Ta 0.04-0.40, P .ltoreq. 0.01, S .ltoreq. 0.01, Nb .ltoreq.0.005, and Mo .ltoreq.0.01% (P, S, Nb, Mo = impurities). The steels are manufd. by (1) heating steels contg. the above components at 1150-1300.degree., (2) hot rolling at starting temp. .gtoreq.1000.degree. and finishing temp. .gtoreq.900.degree. at total draft 50-90%, (3) cooling down to .ltoreq.300.degree., and (4) tempering at .gtoreq.600.degree. and <(Acl transformation point). Alternatively, the hot rolling process may be replaced by rough rolling at starting temp. .gtoreq.950.degree. and finishing temp. .gtoreq.900.degree. at total draft 10-50% and finish rolling at starting temp. <900.degree. and finishing temp. .gtoreq.700.degree. at total draft 50-90%. </p>				